Contents of Applied Physics A 55

This listing presents the papers in alphabetical order of the first author, subdivided into the sections **"Solids and Materials**: Physical and Chemical Properties" and **"Surfaces and Multilayers**: Growth, Modification, and Integration". The Author Index that follows covers **Applied Physics A** and **B**, and is presented in tabular form. The names are listed in alphabetical order in the first column. The second and third columns contain the bibliographic data necessary to locate the paper. The issue is specified by the number separated from the volume number by a slash. The PACS numbers given in the fourth column may be used in conjunction with the PACS listing on the left to infer the topic of a paper.

Solids and Materials

Afifi M.A., Labib H.H., El-Fazary M.H., Fadel M.:
Electrical and thermal properties of chalcogenide glass system $Se_{75}Ge_{25-x}Sb_x$.
Appl. Phys. A 55/2, 167-169 (1992) PACS: 72.20 66.70

Bergquist J., Tomita Y., Shibata M.:
Near-infrared photorefractivity in Cr-doped potassium sodium strontium barium niobate single crystal.
Appl. Phys. A 55/1, 61-64 (1992) PACS: 42.65 42.70 72.40

Buck M.:
Organic chemistry at interfaces studied by optical second-harmonic and IR-VIS sum-frequency generation.
Appl. Phys. A 55/5, 395-402 (1992) PACS: 68.45 82.65

Carrascosa M., Agullo-Rueda F., Agullo-Lopez F.:
Steady holographic gratings in semiconductor multiple quantum wells.
Appl. Phys. A 55/1, 25-29 (1992) PACS: 42.40 78.65

Chen C.S., Zeng F.Q., Huang Y.X., Ye H.J., Hu C.M., Schroder D.K.:
Thermal configurations of oxygen in silicon.
Appl. Phys. A 55/4, 317-323 (1992) PACS: 61.70 71.55 81.40

Ding Y., Eichler H.J., Smandek B.:
Voltage reduction for photorefractive two-wave mixing in InP:Fe by optical gap control.
Appl. Phys. A 55/1, 21-24 (1992) PACS: 42.65 42.40 42.70

Ehrlich G.:
An atomic view of crystal growth.
Appl. Phys. A 55/5, 403-410 (1992) PACS: 61.50C 68.35 68.55 68.35

Emel'yanov V.I., Kashkarov P.K.:
Laser-induced defect formation in semiconductors.
Appl. Phys. A 55/2, 161-166 (1992) PACS: 61.70 81.40

Feulner P., Scheuerer R., Scheuer M., Remmers G., Wurth W., Menzel D.:
High resolution photon stimulated desorption spectroscopy of solid nitrogen by resonant N 1s core level excitation.
Appl. Phys. A 55/5, 478-481 (1992) PACS: 79.60

Frejlich J., Garcia P.M.:
Quasipermanent hole-photorefractive and photochromic effects in $Bi_{12}TiO_{20}$ crystals.
Appl. Phys. A 55/1, 49-54 (1992) PACS: 42.40 72.40 78.20

Frerichs V., Kaenders W.G., Meschede D.:
Analytic construction of magnetic multipoles from cylindric permanent magnets.
Appl. Phys. A 55/3, 242-249 (1992) PACS: 07.55 85.70

Fries S.:
Spatial frequency mixing in electrooptic crystals: Application to nondestructive read-out of optically erasable volume holograms.
Appl. Phys. A 55/1, 104-113 (1992) PACS: 42.40H 42.70 42.79

Göring R., ZHAN Yuan-Ling, Steinberg St.:
Photoconductivity and photovoltaic behaviour of $LiNbO_3$ and $LiNbO_3$ waveguides at high optical intensities.
Appl. Phys. A 55/1, 97-100 (1992) PACS: 72.40 42.81 78.20

Grechishkin V.S.:
NQR device for detecting plastic explosives, mines and drugs.
Appl. Phys. A 55/6, 505-507 (1992) PACS: 41.00

Grigorov K.G., Grigorov G.I., Stoyanova M., Vignes J.-L., Langeron J.-P., Denjean P., Perriere J.:
Diffusion of silicon in titanium nitride films. Efficiency of TiN barrier layers.
Appl. Phys. A 55/5, 502-504 (1992) PACS: 66.30 73.40

Guidotti D., Taubenblatt M.A., Batchelder S.J., Kleinhenz R.L., Dupnock A.A.:
Non-intrusive mapping of subsurface defects in semiconductors.
Appl. Phys. A 55/2, 139-143 (1992) PACS: 07.60L 06.90 42.79 89.20

Hatta S., Kasowski R.V., Hsu W.Y.:
Calculation of local insulating structure of $CaCuO_2$ with interplanar oxygen defects.
Appl. Phys. A 55/6, 508-513 (1992) PACS: 74.60

Hemmen R., Conrad H.:
Inelastic processes in the scattering of metastable rare gas atoms at metal surfaces.
Appl. Phys. A 55/5, 411-416 (1992) PACS: 79.20N 72.20 79.80

Jamnik J.:
Analysis of the frequency response of Schottky junctions in solid-state ionics.
Appl. Phys. A 55/6, 518-522 (1992) PACS: 73.30 77.40 73.40

Jermann F., Krätzig E.:
Charge transport processes in $LiNbO_3$: Fe at high intensity laser pulses.
Appl. Phys. A 55/1, 114-118 (1992) PACS: 42.40 42.70 78.20

Jonscher A.K.:
Relaxation of polarisation.
Appl. Phys. A 55/2, 135-138 (1992) PACS: 77.40 72.20

Jungen R., Angelow G., Laeri F., Grabmaier C.:
Efficient ultraviolet photorefraction in $LiNbO_3$.
Appl. Phys. A 55/1, 101-103 (1992) PACS: 42.25B 42.65 78.20

Koch R., Borbonus M., Haase O., Rieder K.H.:
Reconstruction behaviour of fcc(110) transition metal surfaces and their vicinals.
Appl. Phys. A 55/5, 417-429 (1992) PACS: 68.35B 82.65 61.16

Lan M.D., Goodwin T.J., Klavins P., Liu J.Z., Shelton R.N.:
A possible replacement of single crystal by melt-textured material in the study of $YBa_2Cu_3O_{7-y}$.
Appl. Phys. A 55/6, 514-517 (1992) PACS: 74.70 81.40

Launay J.C., Mazoyer V., Tapiero M., Zielinger J.P., Guellil Z., Delaye Ph., Roosen G.:
Growth, spectroscopic and photorefractive investigation of vanadium-doped cadmium telluride.
Appl. Phys. A 55/1, 33-40 (1992) PACS: 42.65 42.70 72.40

Li J., Cai X., Wang T.M.:
Electronic structures of Fe in $La_{1-x}Ba_xFeO_{3-y}$ ($0 \le x \le 0.70$).
Appl. Phys. A 55/2, 158-160 (1992) PACS: 76.80

Lill Th., Busmann H.-G., Reif B., Hertel I.V.:
Dynamics of C_{60}^+ surface impact: Rolling, deformation, disintegration, and deposition on HOPG graphite.
Appl. Phys. A 55/5, 461-467 (1992) PACS: 36.40 61.80 79.20

Liu J., Weppner W.:
θ-sensors: A new concept for advanced solid-state ionic gas sensors.
Appl. Phys. A 55/3, 250-257 (1992) PACS: 66.30 82.45 82.80 85.80

Lückemeyer TH., Franke H.:
Nonlinear and bistable properties of doped PMMA lightguides.
Appl. Phys. A 55/1, 41-48 (1992) PACS: 78.20 85.60 78.65

Macalik B., Bausa L.E., Garcia-Solé J., Jaque F., Muñoz Santiuste J.E., Vergara I.:
Blue emission in Ti-sapphire laser crystals.
Appl. Phys. A 55/2, 144-147 (1992) PACS: 42.55R 78.55

Meiwes-Broer K.H.:
Electronic properties of free and supported metal clusters studied by photoelectron spectroscopy.
Appl. Phys. A 55/5, 430-441 (1992) PACS: 36.40 79.60 82.65

Methfessel M., Hennig D., Scheffler M.:
Calculated surface energies of the 4d transition metals: A study of bond-cutting models.
Appl. Phys. A 55/5, 442-448 (1992) PACS: 68.35 73.20

Neumann D., Meister G., Kürpick U., Goldmann A., Roth J., Dose V.:
Interaction of atomic hydrogen with the graphite single-crystal surface. I: Angle-resolved photoemission studies.
Appl. Phys. A 55/5, 489-492 (1992) PACS: 79.60, 82.65

Paje S.E., Llopis J.:
Temperature dependence of the photoluminescence and phosphorescence time decay of magnesia-stabilized zirconia.
Appl. Phys. A 55/6, 523-528 (1992) PACS: 78.55H

Papademitriou D.K., Zdetsis A.D.:
A note on X-ray Raman scattering from boron.
Appl. Phys. A 55/3, 258-260 (1992) PACS: 78.70C

Pedarnig J.D., Specht M., Heckl W.M., Hänsch T.W.:
Scanning plasmon near-field microscopy on dye clusters.
Appl. Phys. A 55/5, 476-477 (1992) PACS: 73.20M 07.60 87.15

Pekala K., Jaskiewicz P., Oleszak D.Trykozko R.:
Surface and bulk crystallization of amorphous alloys Ni-Si-B probed by electrical resistivity.
Appl. Phys. A 55/2, 148-153 (1992) PACS: 72.15V

Pfeifer T., Dekorsy T., Kütt W., Kurz H.:
Generation mechanism for coherent LO phonons in surface-space-charge fields of III-V compounds.
Appl. Phys. A 55/5, 482-488 (1992) PACS: 78.47 42.65 63.20

Possenriede E., Jacobs P., Kröse H., Schirmer O.F.:
Paramagnetic defects in $BaTiO_3$ and their role in light-induced charge transport - Optical studies.
Appl. Phys. A 55/1, 73-81 (1992) PACS: 71.55 72.40 76.30 78.50

Reihl B., Dudde R., Johansson L.S.O., Magnusson K.O.:
The electronic structure of alkali-metal layers on semiconductor surfaces.
Appl. Phys. A 55/5, 449-460 (1992) PACS: 71.30 73.40 79.60
Rückmann I., Kornack J., Kolenda J., Petrauskaus M., Ding Y., Smandek B.:
Picosecond photorefractive diffraction in CdTe at 1 μm.
Appl. Phys. A 55/1, 30-32 (1992) PACS: 42.65 42.40 72.40
Rupp R.A.:
Material characterization by holographic methods.
Appl. Phys. A 55/1, 2-20 (1992) PACS: 42.40 42.70 78.20
Schad R., Heun S., Heidenblut T., Henzler M.:
Magnetoconductivity of thin epitaxial silver films.
Appl. Phys. A 55/3, 231-234 (1992) PACS: 73.50J 73.20 73.60
Scherban T., Nowick A.S., Boatner L.A., Abraham M.M.:
Protons and other defects in Fe-doped $KTaO_3$.
Appl. Phys. A 55/4, 324-331 (1992) PACS: 61.70 66.10 76.30
Schmid M., Biedermann A., Stadler H., Slama C., Varga P.:
Mismatch dislocations caused by preferential sputtering of a platinum-nickel alloy surface.
Appl. Phys. A 55/5, 468-475 (1992) PACS: 61.70J 61.80 68.35
Shandarov S.:
Influence of piezoelectric effect on photorefractive gratings in electro-optic crystals.
Appl. Phys. A 55/1, 91-96 (1992) PACS: 42.40 42.70 77.60
Singh K., Bogha S.S., Wachasunder S.D.:
Electrical properties of the Ag_2SO_4-Na_2SO_4 binary system.
Appl. Phys. A 55/5, 493-501 (1992) PACS: 66.30 61.70 82.45
Sturman B., Odoulov S., Holtmann L., Olfen U. van:
Dynamics of parametric conical scattering of orthogonally polarized waves in $BaTiO_3$.
Appl. Phys. A 55/1, 65-72 (1992) PACS: 42.20 42.70 78.20
Sturman B.I., Mann M., Otten J., Ringhofer K.H., Bledowski A.:
Subharmonic generation in photorefractive crystals: Application of theory to experiment.
Appl. Phys. A 55/1, 55-60 (1992) PACS: 42.40 42.65 42.70
Sturman B.I., Mann M., Ringhofer K.H.:
Instability of moving gratings in photorefractive crystals.
Appl. Phys. A 55/3, 235-241 (1992) PACS: 42.40 42.65
Torres L., Zazo M., Iñiguez J., Quintillan M.:
Ferrimagnetic resonance linewidths of nickel ferrites from 26.5 to 60 GHz.
Appl. Phys. A 55/2, 154-157 (1992) PACS: 76.50 07.58
Uematsu M., Wada K., Gösele U.:
Non-equilibrium point defect phenomena influencing berryllium and zinc diffusion in GaAs and related compounds.
Appl. Phys. A 55/4, 301-312 (1992) PACS: 66.30I 61.70
WANG Ke-Ming, SHI Bo-Rong, LIU Xiang-Dong, XU Tian-Bing, ZHU Pei-Ran, ZHU Jun-Si, ZHAO Qing-Tai:
Lattice disorder in silicon induced by 2.0 MeV Cu^+ irradiation.
Appl. Phys. A 55/4, 332-334 (1992) PACS: 61.80M 79.20
White J.O.:
Response of a $BaTiO_3$ phase conjugate mirror to broadband and narrowband radiation.
Appl. Phys. A 55/1, 82-90 (1992) PACS: 42.65 42.60 42.79
ZHONG Lei, WANG Zhanguo, WAN Shouke, ZHU Jinbin, Shimura F.:
Hydrogen-related donor in silicon crystals grown in a hydrogen atmosphere.
Appl. Phys. A 55/4, 313-316 (1992) PACS: 71.55H 61.80 61.70
Zimmermann H., Ryssel H.:
Gold and platinum diffusion: The key to the understanding of intrinsic point defect behavior in silicon.
Appl. Phys. A 55/2, 121-134 (1992) PACS: 61.70B 66.30 61.70 81.60

Surfaces and Multilayers

Al-Refaie S.N.:
The distribution of trapping states at the Al/InP-oxide interface.
Appl. Phys. A 55/2, 213-217 (1992) PACS: 73.40R 73.40 73.60
Albano E.V.:
Monte Carlo simulation of a bimolecular reaction of the type $A + (1/2)B_2 \rightarrow AB$ - The influence of A-desorption on kinetic phase transitions.
Appl. Phys. A 55/2, 226-230 (1992) PACS: 82.65J 82.20 68.35
Arenholz E., Wagner M., Heitz J., Bäuerle D.:
Structure formation in UV-laser-ablated polyimide foils.
Appl. Phys. A 55/1, 119-120 (1992) PACS: 42.60 61.40 68.35
Bay H.L., Winters H.F., Coufal H.J., Eckstein W.:
Energy transfer to a copper surface by low energy noble gas ion bombardment.
Appl. Phys. A 55/3, 274-278 (1992) PACS: 79.20 61.80
Boulmer-Leborgne C., Hermann J., Dubreuil B.:
Spectroscopic observation of the plasma produced by a CO_2 laser beam interaction with titanium target under helium and/or argon atmosphere.
Appl. Phys. A 55/4, 340-346 (1992) PACS: 52.50J 52.70
Chyla W.T., Deering W.D.:
Expulsion of carriers from the double-barrier quantum well and investigation of its spectral consequences.
Appl. Phys. A 55/2, 218-225 (1992) PACS: 73.20D 78.65
Czernik A., Palm H., Cabanski W.Schulz M., Suckow U.:
Infrared photoemission of holes from ultrathin (3÷20nm) Pt/Ir-compound silicide films into silicon.
Appl. Phys. A 55/2, 180-191 (1992) PACS: 70.78 70.72 70.73
Diaci J., Mozina J.:
A study of blast waveforms detected simultaneously by a microphone and a laser probe during laser ablation.
Appl. Phys. A 55/4, 352-358 (1992) PACS: 43.28 79.20 81.60
Dreyfus R.W.:
CN temperatures above laser ablated polyimide.
Appl. Phys. A 55/4, 335-339 (1992) PACS: 61.80B 81.60 42.62
Feil H., Baller T.S., Dielemann J.:
Effects of post-desorption collisions on the energy distribution of SiCl molecules pulsed-laser desorbed from Cl-covered Si surfaces: Monte-Carlo simulations and experiment.
Appl. Phys. A 55/6, 554-560 (1992) PACS: 02.50 81.60 82.65
Georgiev M., Singh J.:
On the theory of laser sputtering through pairing of holes in compound semiconductors.
Appl. Phys. A 55/2, 170-175 (1992) PACS: 72.90 73.20 73.90
Greiner P., Polignone L., Becker C.R., Geick R.:
Contactless measurement of the conductivity of II-VI epitaxial layers by means of the partially filled waveguide method.
Appl. Phys. A 55/3, 279-288 (1992) PACS: 72.20 72.80 78.70
Heitz J., Arenholz E., Kefer T., Bäuerle D., Hibst H., Hagemeyer A.:
Enhanced adhesion of metal films on PET after UV-laser treatment.
Appl. Phys. A 55/4, 391-392 (1992) PACS: 42.60 61.40 68.55
Ionov R., Dudev T.:
Raman and infrared study of amorphous SeTe/CdSe superlattices.
Appl. Phys. A 55/2, 203-206 (1992) PACS: 78.30 68.65 78.65
Jiménez J., Martin E., Garcia B.J., Piqueras J.:
Raman and point contact current - voltage characterization of laser-induced diffusion in GaAs.
Appl. Phys. A 55/6, 566-572 (1992) PACS: 78.30F 72.80
Karetta F., Urbassek H.M.:
The dimer sputtering mechanism of Cu(001) at low bombarding energy.
Appl. Phys. A 55/4, 364-371 (1992) PACS: 79.20N 36.40
Kersting R., Kohl A., Voss T., Leo K., Kurz H.:
Ultrafast carrier dynamics in strained $In_{1-x}Ga_xAs/InP$ heterostructures.
Appl. Phys. A 55/6, 596-598 (1992) PACS: 73.40 73.50 78.47
Kuo B.S.W., Li J.C.M., Schmid A.W.:
Thermal conductivity and interface thermal resistance of Si film on Si substrate determined by photothermal displacement interferometry.
Appl. Phys. A 55/3, 289-296 (1992) PACS: 81.70D 68.60
Kürpick U., Meister G., Goldmann A.:
Interaction of atomic hydrogen with the graphite single-crystal surface: II. Results from thermal desorption spectroscopy.
Appl. Phys. A 55/6, 529-532 (1992) PACS: 81.60 82.65
Ledentsov N.N., Nötzel R., Kop'ev P.S., Ploog K.:
Barrier-disorder induced exciton relaxation via LO-phonons in GaAs/$Al_xGa_{1-x}As$ multiple quantum wells.
Appl. Phys. A 55/6, 533-536 (1992) PACS: 73.20D 78.55 78.65
Lloret A., Wu Z.Y., Thèye M.L., Zawawi I. El, Siéfert J.M., Equer B.:
Hydrogenated amorphous silicon p-doping with diborane, trimethylboron and trimethylgallium.
Appl. Phys. A 55/6, 573-581 (1992) PACS: 68.35F 68.55 72.80
Lue J.T., Nee T.W., Chu J.J., Chang C.M.:
Electronic structure and optical spectra of $YBa_2Cu_3O_{7-\delta}$ thin films in the infrared and UV region.
Appl. Phys. A 55/2, 192-195 (1992) PACS: 78.65E 78.20 74.75
Mazuelas A., Tapfer L., Ruiz A., Briones F., Ploog K.:
Growth and characterization of ultrathin GaP layer in a GaAs matrix by X-ray interference effect.
Appl. Phys. A 55/6, 582-585 (1992) PACS: 68.65 68.55 81.70
Messelhäuser J., Flint E.B., Suhr H.:
Direct writing of gold lines by laser-induced chemical vapor deposition.
Appl. Phys. A 55/2, 196-202 (1992) PACS: 42.60 81.15

Neitzert H.C., Kunst M.:
Microwave detected transient photoconductivity measurements during plasma deposition of intrinsic hydrogenated amorphous silicon.
Appl. Phys. A 55/4, 378-386 (1992) PACS: 73.60F 72.80

Okada N., Katsumura Y., Ishigure K.:
Improvement of corrosion resistance of carbon steel using chemical vapor deposition from $Cr(CO)_6$ with an ArF excimer laser.
Appl. Phys. A 55/2, 207-212 (1992) PACS: 81.15 81.60 68.55

Pellet C., Desgranges C., Schwebel C., Aubert J.:
Angular-resolved energy distribution of secondary ions emitted from a silicon target sputtered by a xenon beam.
Appl. Phys. A 55/4, 359-363 (1992) PACS: 79.20N 81.15

Popp D., Mehling A., Wilzbach R., Langhoff H.:
Surface modification by intense proton irradiation.
Appl. Phys. A 55/6, 561-565 (1992) PACS: 81.40

Qin L.H., Zheng Y.D., Zhang R.:
Study of Ge_xSi_{1-x}/Si superlattices by ellipsometry.
Appl. Phys. A 55/3, 297-300 (1992) PACS: 78.65F 07.60

Rantala J., Jaarinen J., Kuo P.K.:
The effects of experimental parameters in the thermal diffusivity measurements of oriented polymer films using mirage effect: Computer simulation.
Appl. Phys. A 55/6, 586-595 (1992) PACS: 44.50 66.70 07.20

Shafeev G.A.:
Laser-assisted activation and metalization of polyimides.
Appl. Phys. A 55/4, 387-390 (1992) PACS: 61.40 81.10 81.40 82.20

SHENG Jian-Shang, LUE Juh-Tzeng:
Resonant reflectance dips induced by coupled surface plasmon polaritons in thin metal-film/dielectric superlattices.
Appl. Phys. A 55/6, 537-544 (1992) PACS: 78.65

Sprang H., Busmann H.-G., Lauer S., Hertel I.V.:
Texture formation in polycrystalline diamond vapour growth under the influence of a pulsed supersonic beam.
Appl. Phys. A 55/4, 347-351 (1992) PACS: 61.50C 68.55 81.10

Srinivasan G., Rao B.U.M., Saligram U.:
Effects of high-temperature annealing on magnetic ordering in thin films of Bi_2O_3-CaO-Fe_2O_3.
Appl. Phys. A 55/6, 549-553 (1992) PACS: 75.30 75.70

Srinivasan R.:
Photokinetic etching of polyethylene terephthalate films by continuous wave ultraviolet laser radiation.
Appl. Phys. A 55/3, 269-273 (1992) PACS: 42.60 82.65 73.40

Sytov I.P.:
Model of laser-induced chemical etching of silicon in chlorine atmosphere.
Appl. Phys. A 55/4, 372-377 (1992) PACS: 81.60 82.65 42.60

Yan X., Egami T., Marinero E.E., Farrow R.F.C., Lee C.H.:
Atomic in-plane disorder in Co/Pt superlattices.
Appl. Phys. A 55/6, 545-548 (1992) PACS: 68.65

Zhang Y., Cleaver W.M., Stuke M., Barron A.R.:
UV excimer laser photochemistry of hybrid organometallic compounds of gallium.
Appl. Phys. A 55/3, 261-268 (1992) PACS: 07.75 42.55 82.50

ZHAO Yu.-Wen, Suhr H.:
Aluminium oxide thin films prepared by plasma-enhanced chemical vapour deposition.
Appl. Phys. A 55/2, 176-179 (1992) PACS: 81.15G 52.90 68.55